

REMARKS

This Amendment responds to the Office Action dated October 19, 2005, in which the Examiner rejected claims 5, 7, 9, 13-15 under 35 U.S.C. §103 and stated that claims 16, 18 and 19 are allowed.

As indicated above, claims 5, 7, 9, 14 and 15 have been amended in order to make explicit what is implicit in the claims. The amendment is unrelated to a statutory requirement for patentability.

Claim 5 claims a camera comprising a taking lens, an image sensing device, a display device and a controller. The taking lens is movable between a first focus position in which a far distance object is in-focus condition and a second focus position in which a near distance object is in-focus condition. The image sensing device is for sensing an optical subject image formed by the taking lens. The display device is for displaying a subject image sensed by the image sensing device. The controller is for driving the taking lens to a focus position where in-focus condition is substantially obtained for distant to close-range views before display by the display device is started. The driving of the taking lens is performed when power supply to the camera is started. The controller automatically starts driving of the display device after performing the driving of the taking lens.

Through the structure of the claimed invention having a) a taking lens movable between a first focus position for far distance and a second focus position for near distance, b) a display device for displaying a subject image formed by the taking lens and c) a controller for driving the taking lens to a focus position before display by the display device is started, as claimed in claim 5, the claimed invention provides a camera in which a blurred image is not displayed on a live view displaying

device. The prior art does not show, teach or suggest the invention as claimed in claim 5.

Claim 14 claims a camera body to be used with a taking lens which is movable between a first focus position in which a far distance object is in-focus condition and a second focus position in which a near distance object is in-focus condition. The camera body comprises: a display device and a controller. The display device is for displaying an image captured. The controller is for controlling image taking so that a captured image through the taking lens becomes substantially in-focus condition for distant to close-range views before automatically starting the display of the captured image by the display device. The controlling is performed when power supply to a camera including the camera body is started.

Through the structure of the claimed invention a) having a camera body with a movable taking lens movable between first and second focus positions for far and near distant objects and b) having a controller for controlling image taking so that a captured image through the taking lens becomes substantially in-focus condition before automatically starting a display of the captured image by the display device and control is performed when power supply to a camera is started, as claimed in claim 14, the claimed invention provides a camera body in which the possibility that a blurred image is displayed on a live view displaying device is reduced. The prior art does not show, teach or suggest the invention as claimed in claim 14.

Claims 5, 13 and 14 were rejected under 35 U.S.C. §103 as being unpatentable over *Morizumi* (U.S. Patent No. 5,296,970) in view of *Yomogizawa et al* (U.S. Patent No. 5,172,151).

Morizumi appears to disclose a zoom lens system suitable for a video

camera. (Col. 1, lines 7-8). FIG. 1 is the general block diagram showing a zoom lens system 10. In this zoom lens system 10, there is provided a front lens 12, and, in the rear thereof, there are disposed a group 14 of variable lenses, a group 16 of compensator lenses and a group 18 of focus lenses in the described order. The front lens 12 is fixed to a lens housing, not shown. The group 14 of variable lenses and the group 16 of the compensator lenses are moved in a predetermined positional relationship by a side cam tube 40 to be described later, and this side cam tube 40 is driven by a motor 20. The motor 20 is drivably controlled by a zoom motor drive circuit 22. Furthermore, the group 18 of focus lenses is driven by a motor 24 and the motor 24 is drivably controlled by a focus motor drive circuit 26. (Col. 3, lines 47-61). As shown in FIG. 5, in the zoom lens system 10, the rear end S2 of the focal depth constantly coincides with the surface 30A of image-formation, whereby when an object at infinity is photographed, no focussing is required, and, when an object at a close distance is photographed, if this object is disposed at a position, at which focussing is made in the whole range (S3.about.S2) of the focal depth, then no focussing is required. Because of this, in the zoom lens system according to the present invention, no focussing is required for the object at a close distance as compared with the conventional zoom lens system utilizing only the substantially half length of the focal depth and photographing can be performed immediately after the power is turned on. Furthermore, even when an object at the closest distance is taken, focussing can be performed in a short period of time as compared with the conventional zoom lens system. Furthermore, the home position of the group 18 of focus lenses as shown in FIG. 3 is controlled by the focus motor drive circuit 26 in such a manner that, when the power source of the zoom lens system 10 is turned

off, the rear end S2 of the focal depth of an object image at infinity returns to a position, at which the rear end S2 coincides with the surface 30A of image-formation during photographing of the object image at infinity. (Col. 4, line 66 through col. 5, line 25)

Thus, *Morizumi* merely discloses a zoom lens system. Nothing in *Morizumi* shows, teaches or suggests a) driving a taking lens before display by a display device of a subject image (formed by the taking lens) as claimed in claim 5 or b) controlling image taking so that a captured image through a taking lens becomes substantially in-focus before automatically starting the display of the captured image by the display device as claimed in claim 14. Rather, *Morizumi* merely discloses a zoom lens, but does not show, teach or suggest moving the lens in coordination with timing in which a display of a subject image is started.

Yomogizawa et al appears to disclose an image pickup apparatus wherein the image of an object (an optical image) is converted by an image sensing device into video signals, which are then supplied to a monitor. (Col. 1, lines 13-16). In FIGS. 1 and 2, 1 is a housing which contains an image pickup apparatus body. 2 is an objective lens to form an optical image on a film held by a film pressing plate 10. 3 is a lens for a liquid crystal display (finder) 8 to form an optical image on a CCD chip 6. In this embodiment, the objective lens 2 is automatically focus-controlled, that is, automatically moved to the focusing position according to the measured distance information provided by a distance measuring portion comprising a light projecting part 11A and a light receiving part 11B. The lens 3 for the liquid crystal display 8 is a so-called "pan-focusing optical system", by which an optical image is always sharply formed on the CCD chip 6. (Col. 3, lines 1-13). 42 is the control circuit as described

above and shown in FIG. 4 in detail. In FIG. 4, 42-1 is a maximum value detector circuit that detects the maximum value of the digital signal transmitted by the A/D converter 35 and holds the maximum value for a predetermined period of time till the pulse ΦT as described hereinafter is provided. 42-2 is a window comparator that determines if the maximum value held by the maximum value detector circuit 42 is within the predetermined limits, that is, if the video signal reaches the proper level or not. If the level of the video signal is lower than the proper value, the signal of the terminal UP is set to "1", and the image pickup unit 31 is controlled so that the storing time of the CCD chip 6 will be longer and that the video signal level will be higher. If the video signal level is higher than the proper value on the contrary, the signal of the terminal DOWN is set to "1", and the image pickup unit 31 is controlled so that the storing time of the CCD chip 6 will be shorter and that the video signal level will be lower. If the video signal level is proper, the signal of the terminal OK is set to "1", and the image pickup unit 31 is controlled so that the storing time will not be changed. The signal of the terminal OK is then applied to a preset counter 42-3, in which a PUC pulse is then entered. After the power is supplied to the image pickup apparatus by opening the barrier 18 and until the video signal level reaches the proper value, the terminal Q10 of the preset counter 42-3 is set in "1" and the switch 41 is set in OFF by the signal "0" from the inverter 42-4. Thus, the liquid crystal display 8 is prohibited from providing any display with any signal of improper level. Once the video signal level reaches the proper value, the counter 42-3 is reset and the terminal Q10 is set to "0". The output of the terminal Q10 is inverted to "1" by the inverter 42-4 and turns on the switch 41, so that the liquid crystal display 8 is enabled to provide a display. In this embodiment, even if the video signal level

which has been at the proper value is changed out of the proper value to set the terminal OK to "0", the output of the terminal Q10 in the counter 42-3 remains in "0" till the counter 42-3 counts the pulse ΦT by 10 pulses without being reset. The output inverted by the inverter 42-4 to "1" leaves the switch 41 in ON till the counter 42-3 counts 10 pulses without being reset. Till then, the liquid crystal display 8 continues to display. Thus, the liquid crystal display 8 provides no display after the opening of the barrier 18 and till the video signal level reaches the proper value. Once the video signal level reaches the proper value, the liquid crystal display 8 starts and continues to display an image till the output of the terminal Q10 is set to "1", and it stops displaying only when the brightness of the object is too high or low to control the storing time of the CCD chip 6. Consequently, no flickering display can be provided on the liquid crystal display 8. (Col. 4, line 58 through col. 5, line 47)

Thus, *Yomogizawa et al* merely discloses an objective lens 2 to form an optical image on a film and a lens 3 for a liquid crystal display (finder) 8 to form an optical image on a CCD chip 6. Nothing in *Yomogizawa et al* shows, teaches or suggests a display device for displaying a subject image formed by a taking lens movable between a far distance first focal position and a near distance second focal position as claimed in claims 5 and 14. Rather, *Yomogizawa et al* merely discloses an objective lens 2 forming an optical image on a film and a lens 3 for forming an optical image on a CCD chip 6.

Also, *Yomogizawa et al* merely discloses that the lens 3 is always sharply formed on the CCD chip 6 (i.e., nothing in *Yomogizawa et al* shows, teaches or suggests that the lens 3 is movable). Thus nothing in *Yomogizawa et al* shows, teaches or suggests a taking lens movable between first and second focus positions

as claimed in claims 5 and 14. Rather, *Yomogizawa et al* merely discloses a stationary lens in which no focus adjustment is possible.

Additionally, *Yomogizawa et al* merely discloses that until a video signal level reaches a proper value, the liquid crystal display 8 is prohibited from providing any display of any signal of improper level. Nothing in *Yomogizawa et al* shows, teaches or suggests a) driving a taking lens to a focus position before display by a display device is started as claimed in claim 5 or b) controlling image taking so that a captured image through the taking lens becomes substantially in-focus before automatically starting the display of the captured image by the display device as claimed in claim 14. Rather, *Yomogizawa et al* merely discloses prohibiting the liquid crystal display 8 from providing any image with any signal of improper level.

A combination of *Morizumi* and *Yomogizawa et al* would merely suggest that in addition to the zoom lens of *Morizumi* to include a separate lens 3 for a viewfinder as taught by *Yomogizawa et al* and to furthermore only allow the display of *Yomogizawa et al* for the viewfinder to prohibit any display with an improper signal level. Thus, nothing in the combination of the references shows, teaches or suggests a) a movable taking lens is driven to a focus position before display of the subject image on the display device is started, as claimed in claim 5 or b) a movable taking lens, which captures an image, is controlled so that an in-focus condition is obtained before automatically starting the display of the captured image as claimed in claim 14. Therefore, applicants respectfully request the Examiner withdraws the rejection to claims 5 and 14 under 35 U.S.C. §103.

Claim 13 depends from claim 14 and recites additional features. Applicants respectfully submit that claim 13 would not have been obvious within the meaning of

35 U.S.C. §103 over *Morizumi* and *Yomogizawa et al* at least for the reasons as set forth above. Therefore, applicants respectfully request the Examiner withdraws the rejection to claim 13 under 35 U.S.C. §103.

Claims 7, 9 and 15 were rejected under 35 U.S.C. §103 as being unpatentable over *Morizumi* and *Yomogizawa et al* and further in view of *Tsuboi* (JP 07-151952).

Applicants respectfully traverse the Examiner's rejection of the claims under 35 U.S.C. §103. The claims have been reviewed in light of the Office Action, and for reasons which will be set forth below, applicants respectfully request the Examiner withdraws the rejection to the claims and allows the claims to issue.

As discussed above, since nothing in the combination of *Morizumi* or *Yomogizawa et al* shows, teaches or suggests the primary features as claimed in claims 5 and 14, applicants respectfully submit that the combination of the primary references with the secondary reference to *Tsuboi* would not overcome the deficiencies of the primary references. Therefore, applicants respectfully request the Examiner withdraws the rejection to claims 7, 9 and 15 under 35 U.S.C. §103.

Thus it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested.

If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is respectfully requested to contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, applicants respectfully petition for an appropriate extension of time. The fees for such extension of time may be charged to our Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

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Date: February 15, 2006

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